

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A user authentication system comprising:

a communication terminal;

physical-port changeover means ~~having~~comprising:

packet signal input means for inputting a packet signal, ~~which was~~ dispatched to a predetermined communication network ~~requiring authentication from this~~the communication terminal and requiring an authentication from the predetermined communication network, on an upstream side thereof,

authentication existence determination means for determining whether or not the input packet signal, ~~which this packet signal input means input, is a signal that~~ has received the authentication of said predetermined communication network,

an unauthenticated-signal port for, ~~at the time that this authentication existence determination means determined that this was a signal that had not received the authentication yet,~~ outputting this the input packet signal to a default network in response to a determination by the authentication existence determination means that the input packet signal does not have a required authentication and,

an authenticated-signal port for, ~~at the time that said authentication existence determination means determined that this was a signal that had already received the authentication,~~ outputting this the input packet signal to an authentication network in response to

a determination by the authentication existence determination means that the input packet signal has the required authentication;

temporary-use address offer means for, ~~at the time that said packet signal was output from the unauthenticated signal port of this physical port changeover~~ means, temporarily giving a temporary-use IP address for login to the communication terminal ~~that dispatched its packet signal~~ in response to the outputting of the input packet signal to the default network by the unauthenticated signal port;

temporary-use IP address/communication terminal correspondence storage means for storing a correspondence between the temporary-use IP address ~~that this temporary-use address offer means offered,~~ and the communication terminal to which the temporary-use IP address was given;

login picture display means for, ~~at the time that the communication terminal, which received an offer of the temporary-use IP address by said temporary-use address offer means, logged in said predetermined communication network for receiving the authentication, and its packet signal was output from said unauthenticated signal port, inputting this~~ the packet signal dispatched by the communication terminal using the temporary-use IP address to login to the predetermined communication network, and for displaying a login picture;

authentication-propriety determination means for, at the time that the login was made from said communication terminal by using this login picture display means, determining whether or not the authentication is made for ~~this~~ the communication terminal; and

network address bestowal means for, ~~at the time that this authentication-propriety determination means determined to make the authentication,~~ giving to the communication terminal a network address for transferring the signal packet to a desired communication network

in response to the authentication-propriety determination means determining that the authentication has been made, which became an object of the authentication, in a manner that it is caused to correspond to and changing the correspondence between the communication terminal stored in said temporary-use IP address/communication terminal correspondence storage means, to the network address instead of from the temporary-use IP address.

2. (currently amended): The user authentication system according to claim 1, ~~said user authentication system characterized in further~~ comprising network distribution means for, ~~at the time that said communication terminal, to which the network address was given by said network address bestowal means, dispatched the packet signal, receiving this a packet signal through said authenticated-signal port to distribute and distributing this the packet signal to the corresponding communication network, wherein said packet signal was dispatched from said communication terminal that was given the network address by said network address bestowal means.~~

3. (currently amended): The user authentication system according to claim 1, ~~said user authentication system characterized in that~~ wherein said authentication existence determination means comprises a user registration section having for storing information corresponding to registered users, who received the authentication, registered, and determines means for determining whether or not the authentication for each user was made, based on whether or not the user was registered in this user registration section.

4. (currently amended): A user authentication system comprising:
a communication terminal;

physical-port changeover means ~~having~~comprising:

packet signal input means for inputting a packet signal, ~~which was~~ dispatched to a predetermined communication network ~~requiring authentication from this~~the communication terminal and requiring an authentication from the predetermined communication network, on an upstream side thereof,

authentication existence determination means for determining whether or not the input packet signal, ~~which this packet signal input means input, is a signal that~~ has received the authentication of said predetermined communication network,

an unauthenticated-signal port for, ~~at the time that this authentication existence determination means determined that this was a signal that had not received the authentication yet,~~ outputting this the input packet signal to a default network in response to a determination by the authentication existence determination means that the input packet signal does not have a required authentication and,

an authenticated-signal port for, ~~at the time that said authentication existence determination means determined that this was a signal that had already received the authentication,~~ outputting this the input packet signal to an authentication network in response to a determination by the authentication existence determination means that the input packet signal has the required authentication;

temporary-use address offer means for, ~~at the time that said packet signal was output from the unauthenticated-signal port of this physical-port changeover means,~~ temporarily giving a temporary-use IP address for login to the communication terminal ~~that dispatched its packet signal~~ in response to the outputting of the input packet signal to the default network by the unauthenticated signal port;

temporary-use IP address/communication terminal correspondence storage means for storing a correspondence between the temporary-use IP address ~~that this temporary-use address offer means offered~~, and the communication terminal to which the temporary-use IP address was given;

login picture display means for, ~~at the time that the communication terminal, which received an offer of the temporary-use IP address by said temporary-use address offer means, logged in said predetermined communication network for receiving the authentication, and its packet signal was output from said unauthenticated signal port, inputting this~~ the packet signal dispatched by the communication terminal using the temporary-use IP address to login to the predetermined communication network, and for displaying a login picture;

authentication-propriety determination means for, at the time that the login was made from said communication terminal by using this login picture display means, determining whether or not the authentication is made for ~~this~~ the communication terminal; and

normal-IP-address bestowal means for, ~~at the time that this authentication-propriety determination means determined to make the authentication~~, giving to the communication terminal a normal IP address in response to the authentication-propriety determination means determining that the authentication has been made, in a manner that it is caused to correspond to ~~and changing a correspondence between~~ the communication terminal stored in said temporary-use IP address/communication terminal correspondence storage means, ~~instead of~~ to the normal IP address from the temporary-use IP address.

5. (currently amended): The user authentication system according to claim 4, ~~said user authentication system characterized in further~~ comprising IP subnet distribution means for, ~~at the~~

~~time that said communication terminal, to which the IP address was given by said normal IP address bestowal means, dispatched the packet signal, receiving this a packet signal through the authenticated-signal port dispatched from the communication terminal that was given the normal IP address through said authenticated-signal port to distribute this and distributing the packet signal~~ to the corresponding IP communication network.

6. (currently amended): The user authentication system according to claim 4, said ~~user authentication system characterized in that~~wherein said authentication existence determination means comprises a user registration section ~~having~~for storing information corresponding to registered users, who received the authentication, ~~registered, and determines~~means for determining whether or not the authentication for each user was made, based on whether or not the user was registered in this user registration section.

7. (original): The user authentication system according to claim 5, said user authentication system characterized in that said IP sub-network distribution means employs either the IP address or an MAC address of said communication terminal to make distribution of the packet signal sent from the communication terminal.

8. (original): The user authentication system according to claim 5, said user authentication system characterized in that said IP subnet distribution means distributes the packet signal to a communication network having a destination with which both of said IP address and an MAC address accorded.

9. (currently amended): A user authentication system comprising:

a communication terminal;

address bestowal means for, at the time that access was made from ~~this~~the communication terminal, giving to ~~this~~the communication terminal ~~an~~ a temporary address that is accessible by an internet; ~~and~~

authentication-time Web access means for, at the time that said communication terminal made use of the temporary address given by ~~this~~the address bestowal means to request authentication, causing said communication terminal to make an input operation ~~and display for the authentication with~~on a Web display picture, which is displayed at the time of internet access, taken as a picture for the authentication;

authentication means for authenticating the user terminal in response to the input operation; and

normal-IP-address bestowal means for giving to the communication terminal a normal IP address in response to the authentication means determining that the communication terminal is authenticated.

10. (currently amended): A user authentication method comprising:

an internet access request step of, ~~in making access to an internet,~~ dispatching a packet signal ~~from a predetermined communication terminal~~ to a network service provider connected to a local area network to make a request for access to an internet;

temporary-use IP address return step of, ~~at the time that the request was made for access to the internet in this internet access request step,~~ returning a temporary-use IP address to

a communication terminal that dispatched the packet signal~~a temporary-use IP address for login to this communication terminal;~~

an authentication request step of using the temporary-use IP address ~~returned in this temporary-use IP address return step~~ to dispatch the packet signal of an authentication request for a specific internet service provider from said communication terminal;

an authentication-propriety determination step of, based on information described in the packet signal sent in this authentication request step, determining on a network service provider side whether or not authentication of said specific internet service provider is obtained;

a normal-IP-address return step of, at the time that it was determined in this authentication-propriety determination step that the authentication was obtained, returning to ~~its~~ the communication terminal ~~the~~ a normal IP address assigned for said specific internet service provider;

a packet-signal-for-internet-access dispatch step of using the normal IP address ~~returned in this normal IP address return step~~ to dispatch the packet signal for internet access from said communication terminal; and

a packet signal distribution step of receiving the packet signal dispatched in ~~this~~ the packet-signal-for-internet-access dispatch step ~~to~~ and checking said normal IP address thereof, and ~~to distribute~~ distributing this the packet signal to said specific internet service provider.

11. (new): The user authentication system of claim 1, wherein the temporary-use IP address is different from the network address.